

1074822  
updated

## METHOD AND APPARATUS OF CONVERTING A SERIES OF DATA WORDS

### INTO MODULATED SIGNALS

#### BACKGROUND OF THE INVENTION

[0001] This application is a Continuation of co-pending Application No. 10/323,789, filed on December 20, 2002, the entire contents of which are hereby incorporated by reference and for which priority is claimed under 35 U.S.C. § 120; and this application claims priority of Application No. 2001-0082844 filed in Korea on December 21, 2001 under 35 U.S.C. § 119.

#### FIELD OF THE INVENTION

[0002] The present invention relates to method and apparatus of modulating a series of data words into (d,k) constrained sequence in order to record onto a recording medium such as magnetic, magneto-optical, or optical disk.

#### DESCRIPTION OF THE RELATED ART

[0003] In general, when data is recorded onto a magnetic, magneto-optical, or optical medium, the data is modulated into a coded sequence matching the recording medium prior to the recording. However, if the coded sequence resulting from the modulation contains a direct current (DC) component, a variety of error signals such as tracking errors generated in control of a servo of the disk drive become prone to variations or jitter are generated easily.

[0004] The first reason for using said dc-free signals in recording onto a medium is that recording channels are not normally responsive to